## ARACHNIDA FROM THE SOUTH SEAS.

By W. J. Rainbow, F.L.S., F.E.S.<br>(Entomologist to the Australian Museum.)<br>(Plate xxviii.)

Some months ago Mr. J. J. Walker, R.N., F.L.S., F.E.S., kindly handed me a collection of Arachnida for examination and determination. The specimens were collected by that gentleman during the island cruise of H.M.S. Ringarooma in the months of June, July, August and September, 1900. Unfortunately my study of the forms obtained was interrupted by illness, and the publication of the results of Mr. Walker's labours delayed.

In all Mr. Walker collected upon the various islands visited thirty-four species, and these, with descriptions of new forms, are enumerated below. It will be seen from a perusal of the list that, with one exception, there is nothing but what one might have expected. Some of the forms are common and widely distributed.

## Order ARACHNIDA.

## Suborder Scorpionidæ.

Family PANDINOID $\nrightarrow$.

## Genus Hormurus., Thor.

1. Hormurus australasie, Fab.

Loc.-Malekula, New Hebrides.
Common in the South Sea Islands.

## Suborder Opilionidæ.

Section II.-OPILIONES LANIATORES, Thor.

## Family TRI ÆNONYCHOIDÆ.

Genus Triefnonyx, Sör.
2. (?) Trienonyx rapax, Sör.

Loc.-Noumea, New Caledonia.

Only one specimen, and that immature, was collected. I have some doubt as to whether this is really Sörensen's T. rapax. From the fact that the specimen obtained is immature, it is not safe to speak with certainty, hence its present location is only tentative. T. rapax is the type both of its family and genus, and was originally recorded from the Island of Viti.*

## Suborder Araneæ Veræ.

Family ULOBORID风.

## Genus Uloborus, Latr.

3. Uloborus geniculatus, Oliv.

Loc.-Malekula, New Hebrides.
This is a widely distributed species occurring in nearly all tropical regions.

## Family DRASSID $\nrightarrow$.

## Subfamily DRASSODIN压.

Genus Leptodrassus, E. Sim.
Amongst the species collected by Mr. Walker there is one which apparently belongs to the genus Leptodrassus. This is described below. According to Simon, "Le genre Leptodrassus compte six espèces dans la région méditerranéenne et une dans l'Asie centrale (Drassus hamipalpus, Croneb.) ; mais ce genre est aussi représenté dans l' Afrique occidentale et australe et même dans les Andes de l'Amerique du Sud par des espèces encore inédites "; $\dagger$ and again at the foot of his diagnosis of the genus, its distribution is defined as "Europa max. austr.; Africa sept.; Asia occid. et centr;" $\ddagger$ so that the occurrence of the genus on the Island of Malekula, in the New Hebrides, is interesting. At first I was somewhat doubtful as to the systematic position of the form under consideration, but a careful comparison of the Araneid with Simon's definition of the genus Leptodrassus,

[^0]and also with his figure, * convinced me there could be little doubt as to the correctness of my determination.
4. Leptodrassus insulanus, sp.nov.
(Plate xxviii., figs. 1, 1a.)
§. Cephalothorax 3.3 mm . long, 2.4 mm . wide; abdomen 4.4 mm . long, 2.2 mm . wide.

Cephalothorax obovate, longer than wide, arched, mahoganybrown, moderately pubescent. Pars cephalica strongly arched, normal grooves distinct. Pars thoracica broad, arched, radial and median longitudinal grooves distinct.

Eyes in three series of 2, 4, 2. The median anterior pair are very much the largest of the group, and are separated from each other by less than half their individual diameter; posterior median pair are separated from their anterior neighbours by a space equal to once their individual diameter, and from each other by about one and one-half diameters; lateral eyes oblique, oval, and nearly contiguous.

Legs concolorous with cephalothorax, long, slender, moderately hairy, and armed with long, strong spines. Relative lengths 1 , 4, 2, 3.

Palpi long, similar in colour and armature to legs; copulatory organ as in figure.

Falces concolorous with cephalothorax, hairy, arched.
Maxillce concolorous, long, arched, apices inclining inwards.
Labium concolorous also, short, not much longer than broad, truncated.

Sternum somewhat paler in colour than the foregoing, shieldshaped, arched.

Abdomen oblong-ovate, arehed, moderately overhanging base of cephalothorax, pubescent; superior surface and sides dirty yellowish-brown, inferior surface yellowish.

Loc.-Malekula, New Hebrides.

## Family THERIDIIDA.

Genus Argyrodes, E. Sim.
5. Argyrodes antipodiana, Camb.

Loc.-Noumea, New Caledonia.
Mr. Walker collected three specimens at Noumea of a species which appears, when compared with our native forms, inseparable from A. antipodiana. This species also occurs in New Zealand.
6. Argyrodes walkeri, sp.nov.

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\text { (Plate xxviii., figs. } 2,2 a, 3,3 a \text {.) }
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§. Cephalothorax 1.5 mm . long, 1.3 mm . broad; abdomen 2 mm . long, 1.2 mm . broad.

Cephalothorax orange-yellow, smooth, glossy. Pars cephalica produced and elevated, and divided in front by a transverse cleft into two lobes, of which the upper is much the largest, and these, excepting at the base of the cleft, touch each other; the lower lobe is clothed with short, stiff black hairs. Pars thoracica broad, arched, normal radial grooves distinct.

Eyes normal.
Legs long, tapering, orange-yellow except at joints, which have dark brown annulations, and clothed with short black hairs. Relative lengths: $1,2,4,3$, those of the first pair being much the longest.

Palpilong, slender, orange-yellow; copulatory organ as in figure.
Falces yellow, glossy, long, moderately strong, arched.
Maxillce, labium and sternum concolorous, normal.
Abdomen yellowish, oblong, uneven, gradually ascending from its base to posterior extremity, where it is produced into a somewhat cylindrical prominence, the apex of which is slightly depressed, and relieved by a large dark brown spot, the latter thinly clothed with a few short black hairs.
¢. Cephalothorax 2 mm . long, $1 \cdot 4 \mathrm{~mm}$. broad; abdomen 3.2 mm . long, $2 \cdot 6 \mathrm{~mm}$. broad; height (from spinners to highest point) 3.3 mm .

Cephalothorax orange-yellow, smooth, glossy. Pars cephalica arched, elevated in front, but not bilobed. Pars thoracica arched, broad, normal grooves distinct.

Eyes normal.
Legs long, slender, tapering, hairy; coxe and trochanters orange-yellow, thence dark brown, except in the fourth pair, which have the tarsi orange-yellow. Relative lengths: $1,2,4,3$, and of these the first pair is, as usual, the longest.

Palpi short, hairy, orange-yellow.
Falces, maxillce, labium and sternum concolorous, normal.
Abdomen finely pubescent, arched, short, the height distinctly greater than the length; from the base, which is low, it ascends boldly until it terminates in a somewhat conical and obtuse point. Its general colour is clay-yellow, relieved on the upper surface with four large dark brown spots, arranged in rows of two each; of these the first pair is seated at a little more than one-third the space from the base, and the second pair by an equal distance from the apex at the posterior extremity; sides and inferior surface clay-yellow with dark brown markings.

Epigyne as in figure.
Loc.-Torres Island, between New Hebrides and Santa Cruz Groups.

Mr. Walker succeeded in securing three specimens of the species herein described -one male and two females. Simon has recorded from Malekula, New Hebrides, A. miniatus of Doleschall; and from New Caledonia, A. sublimis, L. Koch.* The latter was originally recorded from the island of Upolu, but it also occurs in Australia. The previously recorded species from Australia and the South Sea Islands are :-A. samoensis, Camb., Samoa; A. antipodiana, Camb., Australia and New Zealand; A. sublimis, L. Koch, Upolu; A. gracilis, L. Koch, Upolu; A. malleiformis, L. Koch, Upolu; A. incisifrons, Keys., Bowen and Sydney; A. miniatus, Dolesch., found in all tropical regions. The species described by me $\dagger$ as Theridion margaritarium is also an Argyrodes

[^1](A. margaritarius), and this was collected by Mr. A. M. Lea, F.E.S., at the Clarence River, N.S. Wales.

Genus Theridion, Walck.
7. (?) Theridion ludicus, E. Sim.

Loc.-Noumea, New Caledonia.
Only one specimen, and that immature, was procured by Mr. Walker. Simon recorded this species from the Isle of Pines.

## Genus Latrodectus, Walck.

8. Latrodectus hasseltii, Thor.

Loc.-Chepenehe, Lifu, Loyalty Islands; Noumea, New Caledonia.

Widely distributed throughout Australia, New Zealand, Polynesia, Papua, Malaysia and India.

## Family ARGIOPIDÆ.

## Subfamily TETRAGNATHINE.

Genus Tetragnatha, Latr.
9. Tetragnatha panopea, L. Koch.

Loc.-Tanna and Malekula, New Hebrides; Noumea, New Caledonia.

Originally recorded by Koch from Samoa, and later by Simon from Mallicolo, New Hebrides.*

Genus Argyroepeira, Emer.
10. Argyroepfira grata, Guér.

Loc.-Tanna and Aneityum, New Hebrides.
This species is widely distributed, having been recorded from Halmahera, Amboina, Ceram, Aru, New Guinea and New Britain. $\dagger$

[^2]11. A. celebesiana, Walck.

Loc.-Torres Islands, between New Hebrides and Santa Cruz Groups.

Widely distributed, occurring in Burma, Malaysia, Papua, Australia, and South Pacific Islands.

## Subfamily NEPHILINE.

Genus Nephila, Leach.
12. Nephila maculata, Fab.

Loc.-Tanna, New Hebrides.
Widely distributed, ranging from Burma eastward to the South Pacific.

## Subfamily ARGIOPIN\&.

Genus Argyope, Aud. \& Sav.
13. Argyope picta, L. Koch.

Loc.-Malekula, New Hebrides.
Originally recorded from Port Mackay, Queensland; also from Tamata Station, Mambare River, Neneba, New Guinea, and New Britain.
14. A. plana, L. Koch.

Loc.-Malekula, New Hebrides; Noumea, New Caledonia.
Previously recorded from Australia, Viti, Ovalau, and Tonga.
Genus Cyrtophora, E. Sim.
15. Cyrtophora moluccensis, Dolesch.

Loc.-Aneityum, New Hebrides.
Widely distributed over India, Ceylon, Malaysia, Papua, and South Sea Islands.

Genus Araneus, Clerck ( = Epeira auct.).
16. Araneus theisir, Walck.

Loc.-Tanna, Malekula and Aneityum, New Hebrides; Noumea, New Caledonia.
17. A. nauticus, L. Koch.

Loc. - Noumea, New Caledonia.
This, and the preceding species, are common in tropical regions.

## Genus Gasteracantha, Sund.

18. Gasteracantha mollusca, L. Koch.

Loc.-Noumea, New Caledonia.
Originally recorded from Port de France, Noumea, and later, by me, from British New Guinea.*

## Family THOMISID风.

Subfamily MISUMENINE.
Genus Difa, Thor.
19. Diea bipunctata, sp.nov.
(Plate xxviii., figs. 4, 4a.)
ㅇ. Cephalothorax 2 mm . long, 1.9 mm . broad; abdomen 3.7 mm . long, 2.5 mm . broad.

Cephalothorax pale yellowish, smooth, glossy, nearly as broad as long, arched. Pars cephalica, broad, arched. Pars thoracica broad, arched, radial grooves very faint.

Eyes normal, black, each mounted upon a small, bluish-grey tubercle.

Legs concolorous with cephalothorax, finely pubescent, and armed with spines; of the latter those upon the tibir and metatarsi of the first and second pairs are much the longest and strongest. Relative lengths $1,2,4,3$.

Palpi short, similar in colour to legs, and armed with short spines.

Falces concolorous, short, strong, arched.
Maxillce concolorous also, long, narrow, arched, apices inclining inwards.

Labium concolorous, long, coniform.

[^3]Sternum concolorous also, shield-shaped, truncated in front, gently arched, smooth.

Abdomen ovate, slightly projecting over base of cephalothorax, arched, cream-yellow, finely reticulated. Near anterior extremity a short, broad, median, longitudinal band of yellowish-grey commences, and this terminates near the centre; the band is irregular in outline, and has short, strong lateral projections from whence a scheme of delicate tracery proceeds, the latter being observable only by the aid of a lens; close to the posterior extremity of this longitudinal bar there is on each side of it a large, dark spot or depression; the sides cream-yellow, reticulated, inferior surface yellowish-brown, relieved by a few small spots of cream-yellow.

Epigyne as in figure.
Loc.-Aneityum, New Hebrides.
20. Diea regalis, sp.nov.
(Plate xxviii., figs. 5, 5a.)

ㅇ. Cephalothorax 1.8 mm . long, 1.3 mm . broad; abdomen 2.8 mm . long, 2.2 mm . broad.

Cephalothorax and eyes as in D. bipunctata.
Legs pale yellowish, finely pubescent; tibiæ and metatarsi of first and second pairs armed with long, strong spines. Relative lengths: $1,2,4,3$.

Palpi short, concolorous, finely pubescent, and armed with short spines.

Falces, maxillae and labium concolorous also; normal.
Sternum glossy, gently arched, shield-shaped, truncated in front, finely pubescent, pale yellowish.

Aldomen obovate, slightly projecting over base of cephalothorax, arched, yellow-brown, encircled by a broad finely reticulated cream-yellow band; the superior surface is ornamented with a long, broad, sinuous, finely reticulated cream-yellow design, and this is bisected at its anterior and broadest part; sides yellowbrown with cream-yellow spots; inferior surface yellow-brown.

Loc.-Malekula, New Hebrides.

## Family CLUBIONIDÆ.

## Subfamily SPARASSINE.

Genus Heteropoda, Latr.
21. Heteropoda venatoria, Linn.

A number of specimens of this common spider were collected by Mr. Walker.

Loc.-Tanna, Malekula and Aneityum, New Hebrides; Noumea, New Caledonia.

Genus Prychia, L. Koch.

22. Prychia gracilis, L. Koch.

Loc.-Torres Islands; Malekula and Aneityum, New Hebrides.
Previously recorded from the islands of Viti and the New Hebrides.

## Subfamily CLUBIONINE.

Genus Chiracanthium, C. Koch.
23. Chiracanthium longimanum, L. Koch.

Loc.-Tanna, New Hebrides.
24. Chiracanthium gilvum, L. Koch.

Loc.-Malekula, New Hebrides.
Both species are common in Queensland and the South Pacific Islands.

## Family LYCOSID.A.

## Genus Lycosa, Latr.

25. Lycosa cenosa, mihi.

Loc.-Tanna and Malekula, New Hebrides; Chepenehe, Lifu, and Loyalty Islands.

Previously recorded from the island of Santa Cruz.
26. (?) Lycosa palabunda, L. Koch.

Loc.-Noumea, New Caledonia.
Only one specimen, and that immature. L. palabunda has been recorded from Sydney, Gayndah and Rockhampton, and also. from the South Sea Islands.

## Family ATTID压.

Genus Marptusa, Thorell.
27. Marptusa complanata, L. Koch.

Loc.-Noumea, New Caledonia.
Previously recorded from Rockhampton, Gayndah and Port Mackay.
28. Marptusa melanognathus, Lucas.

Loc.-Noumea, New Caledonia.
This species is cosmopolitan.
Genus Bavia, E. Sim.
29. Bavia dulcinervis, L. Koch.

Loc.-Torres Island.
Originally recorded from Pelew Island.
Genus Marengo, Peckh.
30. Marengo bilineata, Peckh.

Loc.-Tanna, New Hebrides.
Genus Hasarius, E. Simon.
31. Hasarius garetiti, L. Koch.

Loc.-Malekula, New Hebrides.
Originally recorded from Ragatea.
32. Hasaris diloris, L. Koch.

Loc.-Noumea, New Caledonia.
Previously recorded from Port Mackay, Queensland, and Viti Island.

> Genus J о т u s, L. Koch.
33. Jotus arci-pluvit, Peckh.

Loc. - Tanna and Malekula, New Hebrides.
Originally recorded from the Island of Santa Cruz.
Genus Plexippus, C. Koch.
34. Plexippus paykulli, Aud.

Loc.-Malekula, New Hebrides.
This species is cosmopolitan.

## EXPLANATION OF PLATE XXVIII.

Fig. 1 .-Leptodrassus insulanus, eyes.
Fig. la.- ,, $\quad$ copulatory organ.
Fig. 2 .-Argyrodes walkeri ( $\delta^{\text { }}$ ) in profile.
Fig. 2a.— ,, ,, (ð) copulatory organ.
Fig. 3 .- ,,$\quad$ ( $\ddagger$ ) in profile.
Fig. 3a.- ,, ,, epigyne.
Fig. 4 .-Dicea bipunctata (ㅇ).
Fig. 4a.- ,, ,, epigyne
Fig. 5 .-Dicea regalis ( f ).


[^0]:    * Sörensen, Die Arach. Aust. ii. 1886 (Supplement), pp. 57-59, tab. 5, fig. 2.
    † Simon, Hist. Nat. des Araign. (2nd ed.), 1893, Vol. i., p. 358.
    $\ddagger$ Loc. cit., p. 364.

[^1]:    * Simon, Ann. de la Soc. Entom. France, 1897, p. 272.
    † P. L.S.N.S.W., Vol. viii. (2nd Series), 1893, p. 290, pl. x., figs. 3, 3a, 3b, 3c.

[^2]:    * Simon, loc. cit., p. 272.
    + Pocock, Zoological Results, based on material from New Britain, New Guinea, Loyalty Islands, and elsewhere. Part i., 1S98, p. 104.

[^3]:    * Rec. Aust. Mus., Vol. iii., Part 5, p. 112.

